

THE NEW SHIP-YARD.

FACTS ABOUT THE BOATS TO BE BUILT BY THE TRIGG CO.

DESIGN, CONSTRUCTION, OPERATION.

What the Industry Means to Richmond—Brief Sketch of the Development of the American Navy and Naval Ship-Building.

Of all the dates in American history not yet so commemorated, there is none so well worthy of recognition as a national holiday as the 23d of December, for it was on December 23, 1776, that the American navy came into existence.

And there is no part of the story of the American nation of more thrilling interest than that including the events which compelled the establishment of this branch of the public service, nor is there any part of the nation's story, as a whole, that so stirs the patriotic pride of the American people as that which tells of the deeds of the heroes whose names have been inscribed upon the American naval registers.

Ever since the day when Commodore John Paul Jones received his commission, and then stood by on the deck of his ship, while John Paul Jones hung to the breeze the broad folds of the flag that bore as a symbol the picture of a rattlesnake, coiled to strike, with the

foundations are being dug and the work of construction will be pushed forward with all possible speed.

Early this week there will be an important conference on the river bank between city and railroad officials, with a view to taking the initial steps toward the deepening of the river channel, a matter that will be of immense advantage to the ship-yards in any future contracts that may be secured. For the present, contract with the government, the depth of the river will be quite adequate.

The three torpedo boats to be built by the Trigg company will be named the Shubrick, Thornton, and Stockton, and the destroyers the Dale and Decatur. All these boats will be built at the same time, and all must be delivered to the government within twelve and eighteen months of the date of the contract.

THE TORPEDO FLEET.

There are now built or building seventeen torpedo-boats and four destroyers for the United States navy, and contracts have just been awarded for twelve more torpedo-boats and sixteen destroyers. Of the seventeen torpedo-boats now built or building, nine are of the first class, with a displacement varying from 120 to 184 tons, and with a speed of from 24 to 29-1/2 knots. The remaining eight torpedo-boats are of the second class, their displacement varying from 47 to 119 tons and their speed from 20 to 22-1/2 knots. The four destroyers now building are from 225 to 290 tons displacement, and are all designed for 20-knot speed. The new torpedo-boats just contracted for are of 150 to 175 tons displacement and probably 26 to 29 knots speed, while the proposed destroyers are of 400 to 450 tons displacement and 25 to 30 knots designed speed.

THE NECESSARY COMPLEMENT.

The complement or number of men required to man a sea-going torpedo-boat or destroyer varies from about one man for every five tons displacement to about one

type of vessel. The Spanish-American war has, unfortunately, taught nothing whatever about the efficiency of these high-powered boats, and they must still be considered, to a certain extent, as an experiment. In this war the torpedo-boat has been conspicuous by its absence, and the two Spanish destroyers, Furor and Pluton, at Santiago, could hardly have been expected to do the work they were designed to do—viz., destroy torpedo-boats or act as torpedo-boats—when they were bottled up in Santiago harbor with a large fleet of powerful warships outside, equipped with search-lights, making a successful night attack almost as impossible as it would be in broad daylight.

USES OF TORPEDO CRAFT.

The torpedo-boat, like other types of vessels, such as the coast-defense monitor, the gunboat for police duty, the scout type of cruiser, etc., is designed to fill a certain place in naval warfare, and if she fails to show up well when ordered to bombard land fortifications or attack heavier boats with her small rapid-fire guns, it does not mean that the type is a failure. The success of a torpedo-boat, even in the work for which she has been designed, depends not only on the design and construction of the vessel, but these qualities must be multiplied by a "co-efficient of enthusiasm of the crew," for it is a fact that much of the boat's success or failure will be due to her complement. It may be well to state that, since their first appearance in crude form, thirty-five years ago, these boats have gone through a rapid and surprising transformation. They have developed from the open rowboat, with its star torpedo, to the swift, high-powered vessel of the present day, carrying large sets of automatic torpedoes. "The torpedo-boat is often looked upon as a cowardly craft seeking the destruction of the enemy by insidious means, but 'all is fair in war,' and the torpedo-boat is designed to take

McCALL'S PATTERNS, AT 10c. AND 15c. NONE HIGHER.

THALHIMER BROTHERS' ONE-PRICE HOUSE.

McCALL'S PATTERNS, AT 10c. AND 15c. NONE HIGHER.

RICHMOND'S GREATEST STORE!

An honest, straightforward statement made by any merchant regarding the durability and price of his wares, couched in plain, every-day language, will have better effect on the masses than ANY OTHER phrases used for the sole purpose of attracting your attention. We plainly state, and are upheld by our prices, that underselling is the order of every day. UNDERSELLING has made this store the popular trading place of the masses. UNDERSELLING has made this store the BARGAIN CENTRE OF RICHMOND.

Tailor-Made Suits.

We offer to-morrow exceptional values in Ladies' Tailor-Made Suits, Wraps, Furs, Silk Waists, and Separate Skirts. Exclusive novelties in Fur Collarettes, Scarfs, Fancy Neck-Pieces, and Muffs. Tailor-Made Suits in Handsome Broad and Venetian Cloths, entire suit silk lined, made and finished by man tailors, at \$25.

Tight-Fitting Suits, coat silk lined, Spanish flounce skirt and strapped seams, at \$15. New Box-Coat Suits, coat silk lined and skirt lined with percaline, good \$15 value, for \$12.50.

Jackets and Capes.

We are also displaying all the novelties of the season in Jackets and Capes. New Cutaway Double-Breasted Jackets, entirely silk lined, in fine Beaver Cloths and Meltons, at \$15 and \$16.50.

Handsome Coats, silk lined, nicely made and finished, at \$7.50. Nice line Golf Capes at \$6.48, \$10, and \$12.50. Large line Plush Capes from \$3.48 to \$15.

Dress Goods Novelties.

Tailor Suits are not going to be the only thing used, but dress effects will take great prominence for the street, so we have prepared for this. 50-inch French Serges, all wool, 50c. yard. 45-inch Cheviot Serges, 50c. yard. 50-inch Whip-Cords, in all colors, \$1 yard.

46-inch Drap de Ete, 75c. yard. 52-inch English Novelty Checks, 58c. yard. 50-inch Golf Plaids, 58c. yard. Plaid Velours, for waists and children's wear, at 50c. yard.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c. Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c. Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c. Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

THALHIMER BROTHERS, FIFTH AND BROAD STS.

Black Goods.

54-inch Fancy and Diagonal Serges at 58c. yard. 54-inch Heavy Storm-Serges at 58c. yard.

44-inch Black Drap de Ete at 58c. yard. Nice line of Pretty Crepons, 42-inch wide, at 75c. yard.

Silks. We show a handsome line of—Black Brocade Silks from 75c. up. Black Taffetas from 50c. up. Black Gros-Grains from 75c. up.

Black Satin Duchess from 50c. up. Full line of Colored Taffetas, in all the leading shades, at 75c. yard.

Large assortment of Pretty Plaid and Check Silks, for waists, at 75c. yard.

Ladies' and Children's Underwear.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Children's Department

We put on sale to-morrow a large line of Boys' Knee Pants at 25, 50, and 75c., that were made to sell at double these prices.

All Boys' Suits and Overcoats go on sale this week at half their original prices. Boys' Shirt-Waist, the celebrated "Mother's Friend" brand, in white and pretty percales, made with patent waistbands, at 50c.

Boys' Yacht Caps, in navy and pretty mixed woollen cloths, at 25c. Boys' Golf Caps at 15 and 25c.

Ladies' Underskirts.

Large line of Black Sateen Skirts, flounced and corded, from \$1 to \$4.98. Handsome stock of Black and Colored Moire Skirts, the best goods on the market, from \$2 to \$5.

Tapestries and Draperies,

of which we show the largest line in the city, present opportunities that are considered a rarity at many places, but an every-day occurrence here. Attractive, new patterns is one of our features, and has proved to us its advantages.

Carpet Department.

All-Wool Ingrain Carpets, a handsome assortment of patterns, extra heavy, at 50c. yard. 8-Wire Tapestry Carpets, that sell everywhere at 65 and 70c., we show a pretty line of patterns at 50c., made, laid, and lined.

2-Wool Ingrain Carpets, in new patterns, at 35c., worth 50c. yard. 30x66 All-Wool Smyrna Rugs, positively no hemp or jute, at \$1.98. All-Wool Smyrna Mats at 50c. Pretty line of Moquette Mats at 88c.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Basement.

This Week We Offer Some Wonderful Bargains

Decorated China Vegetable Dishes at 10c. White China Bread and Butter Plates at 50c. dozen. Large size White China Meat Dishes at 12c.

Jardineres, decorated in blue and gold, stippled, worth 98c., for 50c. 113-piece Dinner and Tea Sets, of the best English China, in dainty decorations, that sold at \$18—your choice now at \$10 set to close out.

Pretty Decorated China Dinner Sets for six people, sold everywhere at \$5.48, our price this week \$3.98 set.

100-piece Handsomely Decorated English Porcelain Dinner Sets, in several colorings, that were \$12, this week \$7.48.

10-piece Toilet Sets, stippled with gold and handsomely decorated, a good \$5 set, for \$3.98. Nicely Decorated Toilet Sets, that were \$1.75, for \$1.19 set.

Leatherette Lunch Boxes at 10c. Nice size Japanned Bread Boxes for 25c.

Granite Iron Cake Turners, 5c. Granite Rice and Oatmeal Boilers at 19c., worth 35c.

Granite Iron Slop-Pails at 25c., worth 39c. Fancy Straw Lunch Baskets at 10c.

Large size Coal Scuttles at 17c. Large Fancy Tin Waiters at 10c.

Nickel Crumb Tray, with scraper, at 10c. Nickel-Plated Cuspadores at 10c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

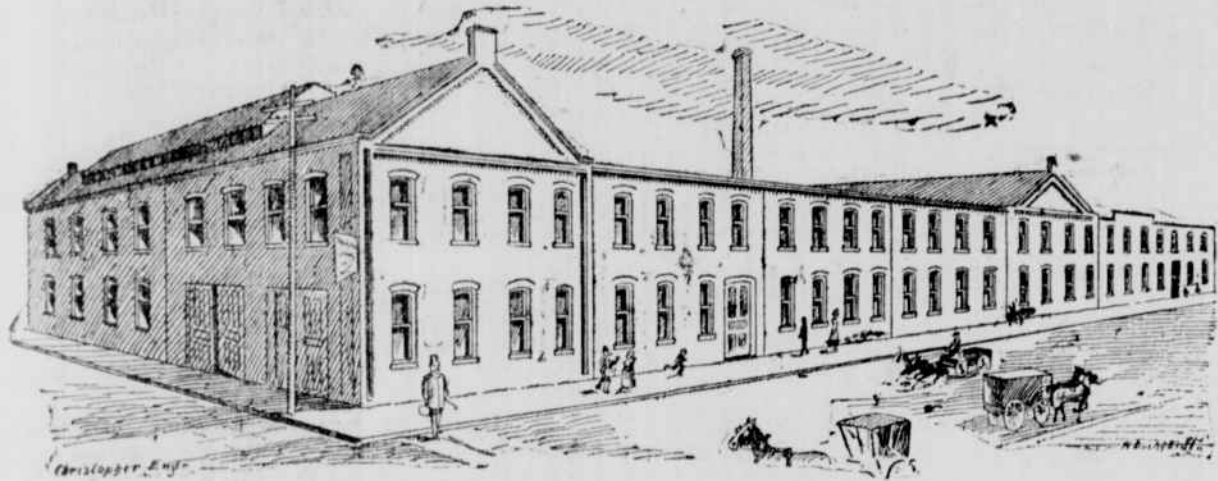
Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.

Large lot of Ladies' Break-fast, that sold at 50 and 75c., to close out at 25c. each.

Ladies' 75c. Wool Ribbed Vest and Pants, in all sizes, at 58c. Ladies' 25c. Wool Ribbed Vests, all sizes, at 17c.; 3 for 50c.

Children's Gray Wool Mixed Union Suits, worth 75c., for 50c. Ladies' 50c. Black Ribbed Pants at 25c.

Children's Ribbed Wrappers, all sizes, at 12c. Ladies' Gray and White Ribbed Union Suits, worth 75c., for 50c.



TALBOTT WORKS, WHERE MACHINERY FOR THE BOATS WILL BE MADE.

significant and appropriate motto, "Don't Tread on Me," down to the date of the annihilation of Admiral Cervera's fleet off Santiago, the great "White Squadron" had a truly glorious career. The building of William R. Hunt was Secretary. He appointed a board of naval officers, with Rear-Admiral John Rodger at its head, "to determine the requirements of a new navy, and report considered the matter jointly, and reported that the United States should have twenty-one battleships—ships fit to meet the best floating forts of the world; seventy unarmored cruisers of various sizes, twenty torpedo-boats, five torpedo-gunboats, and five rams. It was not an extravagant estimate, and it was approved in a way by the nation. But this country could not build even one of the armored ships, for the reason had yet to be learned, that the foundation of all sea power is a shipyard. In the old days it had been easy enough to set afloat efficient wooden fighting-machines, but when an attempt was made to build an ironclad, it was found that not even the thinnest of armor plates could be rolled in this country, and no gun could be made that would pierce even the cheap armor carried by the old-fashioned monitors. After a long apprenticeship the gunmakers and ship-builders of the United States have found their mental resources and the material resources of the country sent afloat a White Squadron that, though not so

man for every six tons displacement. A torpedo-boat complement is not sufficient to run the vessel for any length of time at full speed with changing watches, but all the men on board are required to be at their stations when the order is given to steam at maximum power. Therefore, a torpedo-boat could not keep up her maximum speed for any great length of time, for the complement would be physically unable to stand such a great stress. The complement necessary to man a torpedo-boat is one man for every engine cylinder; two men for each furnace, and one extra man for each fire-room. The number of officers and the crew for working the guns and navigating the vessel is quite a variable quantity, for each navy seems to have different ideas as to what is a sufficient number.

SOME OF THE CHARACTERISTICS.

The characteristics of the torpedo-boat are: (1) The boat should be as small as possible, so as to present a very small target to the enemy, and so that she will be as invisible as it is practicable to make her. (2) The greatest essential qualities are high speed, and the ability to carry the torpedo armament. (3) All the clutter of the hull of the engine noise, such as the hum of the engine, the clatter of the blowers, is carefully avoided. Flames shooting from the stacks will make discovery in a night attack certain, and even a large amount of energy expended in way-making may make water disturbances of so violent a